



NATIONAL SCIENCE FOUNDATION

Request for Comments on the Intent to Conduct an Evaluation of the Scientists and Engineers Statistical Data System (SESTAT)

AGENCY: National Science Foundation

ACTION: Notice of Availability

SUMMARY: This notice announces the intent of the National Center for Science and Engineering Statistics (NCSES) at the National Science Foundation (NSF) to conduct an evaluation of the designs for two of the three surveys that comprise the Scientists and Engineers Statistical Data System (SESTAT). This notice is in response to recent improvements to the design of the National Survey of College Graduates (NSCG) that potentially offset the further need for the National Survey of Recent College Graduates (NSRCG).

As part of this evaluation, the NCSES is: (1) investigating the possibility of discontinuing the information collection for the NSRCG; (2) examining the use of the American Community Survey (ACS) to increase the sample of young graduates within the NSCG; and (3) studying the impact of providing data on young graduates rather than recent graduates.

SESTAT is a unique source of longitudinal information on the education and employment of the college-educated U.S. science and engineering (S&E) workforce. These data are collected through three biennial surveys: the NSCG, the NSRCG, and the Survey of Doctorate

Recipients (SDR). The NSCG is the core of SESTAT providing data from a nationally representative sample of U. S. scientists and engineers with at least a bachelor's degree. The NSRCG supplements SESTAT with an inflow of recent college graduates in S&E degree fields. The SDR further supplements SESTAT with the stock and inflow of U.S. earned doctoral level scientists and engineers.

Prior to the recent improvements to the NSCG, the NSRCG was the only source of data for the inflow of recent college graduates in S&E fields. Prior to the 2010 survey cycle, the NSCG selected its sample of college graduates once a decade from the decennial census long form and relied on the NSRCG to maximize coverage of the underlying S&E workforce. In the 2010 survey cycle, the NCSES redesigned the NSCG as a nationally representative rotating panel survey of college graduates based on biennial samples drawn from the ACS. The inclusion of a field of degree question on the ACS allows the NSCG to efficiently sample college graduates in S&E degree fields. In addition, the ongoing nature of the ACS allows the NSCG to provide coverage of the inflow of new college graduates to each new panel. This improvement in coverage allows the NSCG to provide biennial estimates of young college graduates in S&E degree fields and, as a result, potentially offsets the further need for conducting the biennial NSRCG.

It should be noted that the potential design changes being considered for SESTAT will not result in any change in the population covered by SESTAT, nor will it have an impact on race/ethnicity and other diversity data produced by SESTAT. The potential design changes, however, could impact the precision level for SESTAT estimates of the recent graduates population. Since the NSRCG sample selection targets

recent college graduates and the NSCG sample selection targets young college graduates, the evaluation will examine the impact of providing data on young graduates rather than recent graduates.

The NCSES is interested in all comments, especially from government policy makers, academic researchers, and NSRCG data users that specify concerns related to the possibility of discontinuing the NSRCG.

DATES: Send your written comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] .

ADDRESSES: Send your written comments to Dr. Lynda T. Carlson, Director, National Center for Science and Engineering Statistics, National Science Foundation, 4201 Wilson Blvd, Room 965, Arlington, VA 22230. Send e-mail comments to lcarlson@nsf.gov.

FOR FURTHER INFORMATION CONTACT: Dr. Lynda T. Carlson, Director, National Center for Science and Engineering Statistics, National Science Foundation, at (703) 292-7766, or e-mail at <mailto:lcarlson@nsf.gov>.

SUPPLEMENTARY INFORMATION:

A. Background

The NSF has been responsible for providing information about the nation's scientists and engineers for over 60 years. NSF's Scientists and Engineers Statistical Data System (SESTAT) originally was developed in response to recommendations from the 1989 National Academies Committee on National Statistics (CNSTAT) report, *Surveying the*

Nation's Scientists and Engineers - A Data System for the 1990s. Prior to the 2010 survey cycle, the NSCG selected its sample from the decennial census long form to provide a baseline for a longitudinal cohort study of college graduates residing in the United States over the decade. The NSRCG was used to biennially update the NSCG cohort over the decade with more recent college graduates in S&E degree fields. On a per case basis, the NSRCG is the most expensive of the three SESTAT surveys due to its two-stage sampling design (stage 1 is a sample of academic institutions and stage 2 is a sample of S&E bachelor's and master's graduates) and the difficulty of tracking its highly mobile target population. Nonetheless, without the NSRCG, SESTAT would not have been able to provide data for recent college graduates in S&E degree fields.

In the 2008 National Academies CNSTAT report, *Using the American Community Survey for the National Science Foundation's Science and Engineering Workforce Statistics* Program, Recommendation 7.5 reads: "The NSF should use the opportunity afforded by the introduction of the ACS as a sampling frame to reconsider the design of the SESTAT Program and the contents of its component surveys." Recommendation 7.5 stemmed from the discontinuation of the decennial census long form by the Census Bureau, the availability of the ACS as a sampling frame, and the addition of a question to the ACS requesting respondents' field of bachelor's degree.

The change to an ACS-based sample design for the NSCG allows the NSF an opportunity to rethink SESTAT, particularly whether the NSRCG is the most efficient and timely way to obtain information on the inflow of new graduates. Moving forward, a data system that would no longer require the NSRCG is a potential option. In place of the discontinued

NSRCG, one possibility is to utilize an enhanced NSCG with an increased sample of young college graduates in S&E degree fields.

B. Request for Comments

NCSES is seeking additional information from the public. Governmental policy makers, academic researchers, NSRCG data users, and other interested parties are encouraged to participate by submitting comments. Official address, contact, and due date for submitting comments are stated above.

Dated: November 15, 2011

Dr. Lynda Carlson,

Director,

National Center for Science and Engineering Statistics.

Suzanne H. Plimpton,

Reports Clearance Officer,

National Science Foundation.